

REMARKS

Claims 1-11 are currently pending in this application. By this response to the non-final Office Action dated October 15, 2008, claims 1 and 2 are amended, and new claims 3-11 are added. Support for the amendments is found in the specification, including the claims, as filed. No new matter has been introduced. Favorable reconsideration of the application in light of the foregoing amendments and following comments is respectfully solicited.

Objection to Claims 1 and 2

In section 1 of the Office Action, claims 1 and 2 were objected to for a minor grammatical error. Applicant has amended claims 1 and 2 according to Examiner's suggestion. Thus, Applicant respectfully requests withdrawal of the rejection.

Rejection Under 35 U.S.C. § 102

In section 3 of the Office Action, claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent App. Pub. No. 2002/0016075 (Peng). Applicant respectfully traverses.

Claim 1 recites, *inter alia*,

at least one of the structures of the plasma display panel is exposed twice using successive first and second exposures, and a photomask and the plasma display panel are moved relative to each other within an allowable range of displacement in an exposure pattern, between the first and second exposures.

Page 2 of the Office Action asserts that "Peng discloses . . . performing multiple exposures." Pang, paragraph [0023] states that "glass substrate 36 is placed on a movable stage 52 that can move the glass substrate to a proper position," "the movable stage 52 can redirect the pulse beam 44 to aim at different target regions," and "[t]he ELA apparatus is readily

programmed to perform multiple exposures to properly anneal and crystallize the amorphous ITO layer.” However, Peng only broadly discloses “perform[ing] multiple exposures,” and does not disclose “successive first and second exposures” of a structure in which “a photomask and the plasma display panel are moved relative to each other . . . between the first and second exposures,” as recited in claim 1. Peng’s vague disclosure does not explain how “multiple exposures” is performed in conjunction with “redirect[ing] the pulse beam 44 to aim at different target regions.” Thus, Peng does not disclose, either expressly or inherently (*i.e.*, necessarily), the above limitations of claim 1. Accordingly, Applicant respectfully requests withdrawal of the rejection of claim 1.

Rejection Under 35 U.S.C. § 103(a)

In section 5 of the Office Action, claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Peng in view of Japanese Patent App. Pub. No. S59-143324 (Ashida). Applicant respectfully traverses.

Ashida, FIG. 2 appears to show a photomask 1 with four identical die patterns 2-1 to 2-4 (A-D). Using a reduced exposure light intensity (e.g., $n/4$), FIG. 3 appears to show stepping photomask 1 by the size of the die, along path 9, such that multiple exposures, using identical (aside from defects such as those shown in FIG. 1) die patterns A-D are made in many die positions. Except for peripheral die positions, each die position receives four exposures, each corresponding to die patterns A-D.

Page 3 of the Office Action notes that “Ashida discloses displacing the patterns on the photomask between exposures by one cycle of periodicity,” and that “[i]t would have been obvious . . . to have displaced the patterns on the photomask by one cycle of periodicity”

(*emphasis added*). However, even if, for the sake of argument, displacement by one cycle of periodicity would have been obvious, the cited art nevertheless fails to render obvious amended claim 2.

Amended claim 2 recites, inter alia, that “a photomask and the plasma display panel are moved relative to each other by **multiple** cycles of periodicity included in an exposure pattern, and also within an allowable range of displacement at the position, between the first and second exposures.” One of skill in the art would not have modified the proposed combination of Peng and Ashida to move the photomask by more than one cycle of periodicity. For example, with reference to Ashida, FIGS. 1-3, by moving photomask 1 by two, rather than one, positions between each exposure, each die position would only receive a single exposure by a single one of patterns A-D. Thus, such a modified process would fail to provide “at least one of the structures of the plasma display panel [that] is exposed twice using successive first and second exposures,” as recited in claim 2, and claim 2 is not obvious in view of the cited art. Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a).

New Claims 3-11

New claims 3-11 are allowable at least by virtue of their dependency upon claim 1.

Further, claim 4 recites that “the photomask is moved a distance in the widthwise direction between the first and second exposures, the distance being less than w.” A non-limiting example of such a movement is illustrated in FIG. 3A. Claim 6 recites “the photomask is moved a distance in the lengthwise direction between the first and second exposures, the distance being less than p.” Claim 6 recites “the photomask is moved a distance in the

lengthwise direction between the first and second exposures, the distance being less than w.” A non-limiting example of such a movement is illustrated in FIG. 3B. According to each of claims 4, 6, and 7, small movements, on the order of but less than the size or the pitch of the structure, are made between successive exposures of a structure. In contrast, as discussed above, Ashida discloses moving the photomask by the size of an entire die pattern. Peng, on the other hand, only vaguely mentions performing multiple exposures, and does not detail that movement is performed between such exposures, or how any such movement would be performed.

Also, claim 5 recites that “the photomask is moved two or more integral times the distance p in the widthwise direction between the first and second exposures.” As noted above, Peng only vaguely mentions performing multiple exposures, and does not detail that movement is performed between such exposures, or how any such movement would be performed. Ashida does not disclose or suggest a movement of multiple times of a pitch distance.

Thus, claims 4-7, and claims 8-11 which depend thereon, are allowable over the cited art for reasons in addition to those discussed above with respect to claims 1 and 2. Accordingly, Applicant respectfully requests allowance of new claims 3-11.

Conclusion

In view of the above remarks, Applicant respectfully submits that the application is in condition for allowance, and respectfully requests the Examiner’s favorable reconsideration as to allowance. The Examiner is invited to contact the Applicant’s representative listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

Application No.: 10/511,749

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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